Birding Sites of the OSME Region 8— The birds of the lower Syrian Euphrates

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Much of eastern Syria consists of open steppes and desert, becoming more arid towards the Iraq border. The river Euphrates flows southeast from the Turkish highlands to join the Tigris in central Iraq (Figure 1); as it passes through northeast Syria it forms a broad and fertile valley in an otherwise barren landscape. For millions of birds that breed in eastern Europe and central Asia, the valley forms a stepping stone across an inhospitable region to the abundance of tropical Africa. For other migrants escaping the harsh winters of central Asia, it is an important wintering refuge. The Euphrates is also at the heart of the Fertile Crescent, one of the first centres of civilisation. As the human population grows, it takes up more and more of the valley's resources. Until 50 years ago, the river regularly flooded to a depth of four metres, destroying the farms along its banks, but from 1968 the valley has been transformed by a series of massive dams, beginning with the al-Furat dam that created lake Assad. Large areas of former floodplain are now fields and people can build and farm without fear of destruction. The population density is high and rapidly increasing.

In spite of its strategic position, the bird fauna of the Syrian Euphrates is little known. For many years access was difficult as it required a long journey across the drylands east of Aleppo to the city of ar-Raqqa. The completion in 1981 of an excellent road from Damascus to Deir ez-Zor via Palmyra transformed the situation, bringing the valley within five hours' easy drive of the capital. An inventory of wildlife areas in the Middle East made

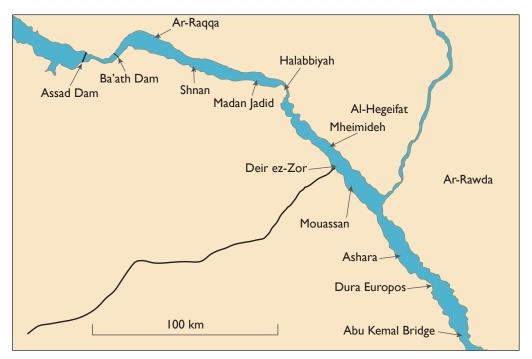


Figure 1. Key sites along the lower Syrian Euphrates.

in the early 1990s (Evans 1994) provides an invaluable summary of the scanty data then available for Syria; it designated 22 Syrian Important Bird Areas (IBAs). The entire Syrian Euphrates valley was included in IBA10 but almost all the data came from three sites, an oxbow at Shumaytiyah*, 20 km upstream from Deir ez-Zor, 'Mayadin Pool', since drained, and the Halabbiyah area. Baumgart *et al* (1995, English translation with update supplement 2003) summarised the Syrian avifauna but their account did not include several species now known to breed commonly along the valley.

In the last ten years, Syria has been recognised as an exciting destination for its birds as well as for its outstanding archaeological sites, and there has been a huge increase in foreign birders and ecotourists. The first records from Mheimideh (Figure 1) are from 1994 (Hofland 1994). The Syrian Wetland Expedition (SWE) of January-February 2004 (Murdoch et al 2004, 2005), supported by OSME, collected baseline data on the resident and wintering birds of the Euphrates though coverage was not comprehensive. In preparation for the SWE, Andrews downloaded satellite photographs from the NASA website and used them to locate potentially interesting habitats; he listed the oxbows, giving each a number prefixed by the letter W (Table 1), a numbering system followed in this account. Of the 36 he located, expedition members assessed 18, including all eight major oxbows. Few have been surveyed since; birders often visit the well-known sites, Mheimideh and the suspension bridge at Deir ez-Zor, but many oxbows are still little known or even unvisited. As a result, this account of the valley's birds is based on very limited information, particularly during the breeding season. Its first aim is to present an overview of the available data and to indicate where more observations would be most valuable; the authors hope to stimulate birders to explore some of the many underwatched sites in the valley. The second is to emphasise how much of its wildlife is threatened. The third and most important is to argue that conservation of what remains requires active participation from the people living in the valley, which requires provision of high-quality information about conservation in a language that they can understand; and a precondition for that is substantial support from the international conservation community.

THE PHYSICAL AND MAN-MADE ENVIRONMENT

The Euphrates still flows throughout the lower valley but the upper valley is filled by two massive reservoirs, lakes Tishreen and Assad, and the much smaller lake Ba'ath. This account covers the valley from the dam furthest downstream, the Ba'ath dam, to the river's entry into Iraq, a distance of *c*320 km, *c*60% of its length in Syria. The major source of water in the Euphrates is from snow melt in the Turkish mountains; peak flow is at its highest in March–May. Maximal spring flow rates were formerly forty-fold the minimal flow rate in October and water levels were on average 3–4 m higher in spring than in autumn (Evans 1994). The series of dams in the upper valley now controls the annual spring floods. Two major tributaries join this stretch of the river, the Balikh at ar-Raqqa and the Khabur near Busayrah. Much of their water comes from a network of springs greatly depleted by excessive extraction of water for irrigation; their flow is now intermittent. Three dams now control the flow of the Khabur.

The climate is continental, with daily mean temperatures of $c40^{\circ}$ C in July–August but $c7^{\circ}$ C in midwinter, with many nights of frost. Gentle evening breezes relieve the summer heat but in winter bitter winds blow off the Turkish mountains. Annual precipitation is c300 mm where the Euphrates enters Syria from Turkey but is only c140 mm at the Iraq

^{*} Sites for which GPS data are available are denoted with an asterisk (*) and the data presented in Tables 1 and 2.

Table I. List of oxbows on the lower Syrian Euphrates (following Andrews in Murdoch *et al* 2005). The list is not exhaustive but includes all oxbows of a reasonable size that are as yet undrained. Column headings 1: code number of oxbow; 2: name given to the oxbow (usually that of the nearest village); 3: oxbow size (S = small, L = large); 4: bank (S = southwest bank, N = northeast bank); 5: co-ordinate (N°); 6: co-ordinate (E°); 7: date(s) in 2004 of visits during SWE; 8: conservation value as assessed during SWE (* little, ** important, *** very important).

L	2	3	4	5	6	7	8
WI	-	L	S	35.84	39.16	17.2	**
W2	Shnan	L	S	35.82	39.23	14.1, 17.2	***
W3	Sabkha	S	S	35.81	39.27	17.2	*
W4	-	S	S	35.81	39.32	-	
W5	-	S	S	35.81	39.37	-	
W6	Jdeida	L	Ν	35.84	39.40	18.2	**
W7	-	S	S	35.81	39.40	-	
W8	-	S	S	35.78	39.51	-	
W9	-	L	Ν	35.81	39.56	-	
W10	Madan Jadid	L	S	35.76	39.6	16.2	**
WH	-	L	S	35.75	39.65	16.2	**
WI2	-	S	Ν	35.78	39.67	-	
WI3	-	L	Ν	35.77	39.74	18.2	*
W14	-	S	Ν	35.76	39.78	18.2	*
W15	al-Kasra	S	Ν	35.59	39.93	15.1	**
W16	-	S	S	35.50	39.94	-	
W17	Shumaytiyah	S	S	35.46	39.99	-	
W18	Mheimideh	S	Ν	35.43	40.10	15.1, 17.2, 19.2	***
W19	-	S	Ν	35.38	40.13	-	
W20	Hatla	S	Ν	35.34	40.19	17.2	*
W2I	-	S	S	35.28	40.20	-	
W22	-	S	Ν	35.28	40.3 I	16.1	**
W23	Mohassan	S	S	35.24	40.30	19.2	*
W24	-	S	S	35.15	40.38	-	
W25	-	S	S	35.13	40.40	-	
W26	-	S	Ν	35.03	40.50	-	
W27	-	S	Ν	35.00	40.53	18.2	*
W28	Ashara	L	S	34.90	40.55	20.2	**
W29	-	S	S	34.80	40.64	-	
W30	Abu Hammam	S	Ν	34.80	40.68	16.1, 20.2	**
W31 / W32	Gharanij	S	Ν	34.80	40.74	16.1, 20.2	**
W33	-	S	S	34.61	40.88	-	
W34	-	S	Ν	34.63	40.95	-	
W35	-	S	S	34.57	40.90	-	
W36	-	S	Ν	34.56	40.95	-	

border. The valley lies 80-200 m below the surrounding plains and is usually c10-12 km in width, narrowing to 1-2 km at the Halabbiyah 'gorge'. It is characterised by many large oxbows up to 4 km across; some have been drained but many still have substantial areas of open water and reedbed. There are many villages, mostly on the lower slopes of

the valley. The major population centre above the Halabbiyah gorge is the ancient city of ar-Raqqa*, *c*170 km east of Aleppo, the only location in the upper valley with hotels catering for foreign tourists. Below Halabbiyah, the valley is initially similar, but near the Iraq border it becomes noticeably hotter with a very high population density. Deir ez-Zor* is the major city of the lower valley and one of the largest in Syria; a relatively modern city with a pleasant, relaxed feel, it lies along the river with several suburbs on islands. Its name is often abbreviated to 'Deir', the Arabic for 'monastery'. It has several hotels; the Ziad hotel*, 15 minutes' walk from the suspension bridge, is much used by birders and strongly recommended.

The main access roads run from Aleppo, a dour 90 km journey of little ornithological interest east to the valley at Maskaneh, and the stunningly beautiful 460 km drive across the *badia* (arid lands) from Damascus to Deir ez-Zor, which can be full of birds on migration. The valley roads are not as fast as most Syrian highways, particularly on the northeast side and downstream from Deir ez-Zor; they pass through endless villages where the going can be very slow. A new road planned to run above the southern edge of the valley will greatly reduce journey times.

VEGETATION

The flora is mainly of Indo-Turanian origin with Mediterranean and Saharo-Sindian influences (Evans 1994). The increasing aridity as the Euphrates flows through Syria determines the vegetation that the ecosystem can support (Mouterde 1984). The other major contributing factor is human activity. The valley was once thick with forests of Euphrates Poplar *Populus euphratica,* willows *Salix* spp and tamarisk *Tamarix* spp (Aidek 2010) but all natural woodland has long disappeared. Many islands fringed by Common Reed *Phragmites australis* and Common Bulrush *Typha latifolia* have formed as a result of the river's declining flow; these islands, known locally as *hawaeij,* are characteristic of the valley and one of its most important habitats (Plate 1). Two common shrubs on the hawaeij are the desert-thorn *Lycium depressum* (Solanaceae) and the herbaceous perennial *Glycyrrhiza glabra* (Fabaceae); the roots of *G. glabra* are of medicinal value and the source of liquorice. Common grasses along the river include the canary grass *Phalaris minor,* the couch grass *Cynodon dactylon* and Slender Wild Oat *Avena barbata* (Poaceae). Eastern Groundsel *Senecio vernalis* (Asteraceae) is a poisonous annual of medicinal value.



Plate I. Islet (a *hawaeij*) in river Euphrates, Abo Hardoub, 80 km east of Deir ez-Zor, Syria, 8 November 2009. © Ahmad Aidek

The badia bordering the valley has long suffered from severe overgrazing. Vast areas of northeast Syria have been converted to intensive irrigated cultivation and few areas of reasonably intact steppe remain. The following have high grazing value: perennial subshrubs including White Wormwood Artemisia herba-alba and Redstem Wormwood Artemisia scoparia, the saltwort Salsola vermiculata and the saltbush Atriplex leucoclada, the salsify Scorzonera papposa and grasses such as Schismus arabicus, Wall Barley Hordeum murinum, Mediterranean Hair Grass Rostraria cristata and the wiregrass Aristida plomosa (Poaceae), Haloxylon salicornicum (Chenopodiaceae) and Arnebia decumbens (Boraginaceae). Some plants such as the annual wall-rocket Diplotaxis harra (Brassicaceae), Phlomis syriaca (Lamiaceae) and Wild Mignonette Reseda lutea (Resedaceae) have little or no grazing value and are indicators of degraded habitat; others such as Harmal Peganum harmala (Zygophyllaceae), the germander Teucrium pruinosum (Lamiaceae) and the daisy Gymnarrhena micrantha (Asteraceae) are poisonous. Other perennials and subshrubs include the yarrows Achillea fragrantissima and Achillea santolina, the thistle Carduus australis, the burdock Cousinia wesheni, Rough Cocklebur Xanthium strumarium and the knapweed Centaurea virgata (Asteraceae) and the rockrose Helianthemum ledifolium (Cistaceae).

After good rains, the spring is characterised by flushes of flowers, at their best in April, which may include the lilies *Ixiolirion tataricum* and *Ixiolirion montanum* (Ixioliriaceae), the stock *Malcolmia crenulata, Alyssum linifolium,* and several species of milkvetch *Astragalus* (Fabaceae), species of storksbill *Erodium* (Geraniaceae), the pheasant's-eye *Adonis dentata* (Ranunculaceae), the rupturewort *Herniaria hemistemon* (Caryophyllaceae), Eurasian Heliotrope *Heliotropium europaeum* (Boraginaceae), the bullwort *Ammi majus,* the 'giant fennel' *Ferula blanchei* and the thorow-wax *Bupleurum lancifolium* (Apiaceae). Ruderals include Corn Poppy *Papaver rhoeas* (Papaveraceae) and the annual aromatic mayweed *Matricaria aurea* (Asteraceae). Areas of sabkha may support the grasses *Aeluropus lagopoides* and *Aeluropus littoralis* (Poaceae), *Aizoon hispanicum* (Aizoaceae) and the horehound *Ballota undulata* (Lamiaceae) are found in rocky areas.

NON-AVIAN VERTEBRATES

Syria possessed a rich mammal fauna into historical times but little remains after millennia of overhunting and habitat destruction. Assyrian reliefs show the king hunting Asian Lions Panthera leo persica in a fertile landscape; Lion and the Anatolian Leopard Panthera pardus tulliana are extinct in Syria. Caracal Lynx Caracal caracal is endangered but Wolves *Canis lupus* and Syrian Striped Hyenas *Hyaena hyaena syriaca* still survive in low numbers. Smaller predators of the badia include Red Foxes Vulpes vulpes (common and widespread), Rüppell's Foxes Vulpes rueppellii (scarce) and Sand Cats Felis margarita (widespread south of the Euphrates but very rare to its north). There are still a few Jungle Cats Felis chaus and Otters *Lutra* lutra along the river. The most successful remaining predator is Golden Jackal *Canis auritus*; it is still common and easy to see, foraging round human settlements at night. Of the herbivores, the steppes held Arabian Oryx Oryx leucoryx, Sand Gazelles Gazella subgutturosa and Syrian Wild Asses Equus hemionus hemippus, even into Ottoman times; all are gone and the last is now globally extinct. Overgrazing and habitat degradation have greatly diminished numbers of the smaller herbivores such as jerboas Jaculus spp and Cape Hare Lepus capensis, with major effects on populations of predators. Indian Crested Porcupines Hystrix indica still survive in the arid mountains south of the valley and Long-eared Hedgehogs *Hemiechinus auritus* are commonly seen at night by the roadside. Eurasian Wild Boars Sus scrofa and Persian Fallow Deer Dama mesopotamica once inhabited the valley's forests but are now extinct in Syria; a few Eurasian Badgers Meles meles persist along the river and the adjoining badia. Honey Badger Mellivora capensis was believed



Plate 2. Euphrates Soft-shelled Turtle Rafetus euphraticus, al-Qsupy, 65 km upstream of Deir ez-Zor, Syria, 26 July 2009. © Ahmad Aidek

extinct in Syria but in 2008 one was shot on a haweija between Deir and Mayadin; it was videoed and its identification confirmed (AHA). Mongooses are occasionally reported along the valley; the authors have no personal experience but they are most likely to be Grey Mongoose *Ichneumon herpestes*, which is present in Syria's coastal mountains. Syria's mammal fauna is now essentially relict; a few species, mainly scavengers, are doing well but most of the larger species are extinct or need urgent protection.

Reptiles include Striped-necked Terrapin *Mauremys rivulata* and Dice Snake *Natrix tessellata*, both common. The Euphrates Soft-shelled Turtle *Rafetus euphraticus* (Plate 2) is an endangered species limited to the Tigris–Euphrates basin; it is difficult to find but appears to be rare. It is hunted using fishing lines and eaten by local people; the huge reservoirs of the upper valley have presumably fragmented and greatly reduced its range. The Desert Monitor *Varanus griseus* is still widespread in the badia but suffers from persecution and habitat destruction. The Euphrates holds 30 genera and at least 40 species of fish including the cyprinids *Aspius vorax* and *Cyprinion macrostomus*, several species of barbels *Barbus* spp and the catfish *Silurus triostegus* (Beckman 1962, Ferlin 1983, Aidek 2010).

BIRDS

The river itself often holds few birds. Few duck seem to use it for feeding except in the Halabbiyah gorge. In winter there are small numbers of Common Black-headed Gulls *Chroicocephalus ridibundus* and Armenian Gulls *Larus armenicus*; Great Black-headed Gulls *Larus ichthyaetus* are widespread but uncommon. Ten species of gull have been recorded, including even Kittiwake *Rissa tridactyla* (Kinzelbach 1985). A few raptors drift along it, most commonly Black Kites *Milvus migrans* and Marsh Harriers *Circus aeruginosus*. Pied Kingfishers *Ceryle rudis* are common and conspicuous residents; Common Kingfishers *Alcedo atthis* and Great Cormorants *Phalacrocorax carbo* winter in small numbers. Spurwinged Lapwings *Vanellus spinosus* are widespread and vocal. Good vantage points from which to enjoy the river are the suspension bridge* at Deir ez-Zor, an excellent and convenient viewpoint (Plate 3); Hassan, on the road from Deir to Mheimideh; the late



Plate 3. Suspension bridge, Deir ez-Zor, Syria, 8 September 2009. © Ahmad Aidek



Plate 4. Cliffs below Dura Europos, Syria, 8 March 2010. © Ahmad Aidek

Roman city of Dura Europos*, which has fine views from its cliffs of the lower valley (Plate 4); and the Halabbiyah gorge*, where roads run along both banks. There are several road bridges but as they are usually of military significance, visitors should be accompanied by Syrian nationals who can translate as necessary.

The Euphrates follows an irregular, almost serpentine course, looping down the valley, which has resulted in the formation of large numbers of islands and oxbows. Gravel beds form temporary islets and provide breeding sites for Spur-winged Plover and Little Ringed Plover *Charadrius dubius*. More permanent islands, the hawaeij, become heavily wooded and fringed by dense vegetation (Plate 5), making access difficult; as a result, they are key



Plate 5. Aiash island, a *hawaeij*, river Euphrates 10 km upstream from Deir ez-Zor, Syria, 29 October 2009. © Ahmad Aidek

refuges for wildlife but ornithological data are scanty. Hawaeij offer safe feeding for migrants such as Turtle Doves Streptopelia turtur and winter hunting grounds for Great Spotted Eagles Aquila clanga VU (globally Vulnerable). Cetti's Warblers Cettia cetti are noisy residents of the riverine undergrowth. Few species appear to use the woods for nesting; exceptions are Dead Sea Sparrow Passer moabiticus, which often forms large colonies, and Eurasian Magpie Pica pica, which can be very common. Common Woodpigeons Columba palumbus have been seen displaying but are not yet proven to breed; other possibilities are raptors such as Black Kites and colonies of herons and Rooks Corvus frugilegus. More observations from hawaeij would be valuable.

Most of the valley floor is intensively cultivated and often soaked in insecticide. Species that can flourish in the fields are



Plate 6. Blue-cheeked Bee-eater Merops persicus, Syria, 16 April 2010. © Ahmad Aidek

the common birds of the valley: House Sparrow Passer domesticus, Graceful Warbler Prinia gracilis, Magpie and Hooded Crow Corvus cornix. Black Francolin Francolinus francolinus is heavily hunted and wary but still common. During migration, sparrows, shrikes Lanius spp and a few warblers pass through but at other seasons interest is limited; Black-headed Buntings Emberiza melanocephala are widespread in summer, Blue-cheeked Bee-eaters Merops persicus are conspicuous on telegraph wires (Plate 6) and a few Ménétries' Warblers Sylvia mystacea nest in the more extensive scrubby areas. In winter there are large flocks of Rooks and Common Starlings Sturnus vulgaris and smaller numbers of Northern Lapwing Vanellus vanellus; Western Jackdaws Corvus monedula are much scarcer in the lower valley than upstream. Eurasian Blackbird Turdus merula, Song Thrush Turdus philomelos, European Robin Erithacus rubecula and Common Chaffinch Fringilla coelebs are widespread winter visitors. 'Chiffchaffs' Phylloscopus collybita sensu lato are relatively common; the classification of this group is still debated but it is likely that individuals



Plate 7. Gravel pit near Mohassan, Syria, 19 April 2010. © David Murdoch

of the nominate subspecies, *P. collybita abietinus* and possibly of Caucasian Chiffchaff *P. (collybita) lorenzii* overwinter. Wet fields are always worth checking as they can hold a range of passage waders and passerines, for instance Yellow Wagtails *Motacilla flava* and Red-throated Pipits *Anthus cervinus*. Some fields are too salty to cultivate; they are easy to miss, lost in dull expanses of intensive agriculture, but observations from the SWE indicate that they form an important habitat: in winter they can hold large roosts of duck and waders and in summer, if they are relatively undisturbed, breeding waders such as Kentish Plover *Charadrius alexandrinus*. Villages and farms are scattered through the valley floor and relentlessly spreading; they hold few birds apart from Laughing Doves *Spilopelia senegalensis*, Collared Doves *Streptopelia decaocto* and House Sparrows. The pressure on the land is so intense that gardens are rarely of any size.

Human activity has left behind many derelict gravel pits (Plate 7), often close to the river, with pools of varying depths fringed by reeds. The pits are good for migrant waders and hold wintering passerines such as White Wagtails Motacilla alba, pipits (Water Anthus spinoletta, Meadow Anthus pratensis and a few Red-throated) and occasional Citrine Wagtails Motacilla citreola. If they are undisturbed, species such as Little Tern Sternula albifrons, Black-winged Stilt Himantopus himantopus, Little Ringed Plover and White-tailed Lapwing Vanellus leucurus may breed. The derelict land round pools can develop dense stands of ruderals such as thistles *Carduus* spp that attract a wide range of passerines; they always deserve a thorough search. In winter, there are flocks of Eurasian Skylarks Alauda arvensis, Crested Larks Galerida cristata and Calandra Larks Melanocorypha calandra; several races of Siberian Stonechat Saxicola maurus; and finches such as Common Linnet Carduelis cannabina and Desert Finch Rhodospiza obsoleta. During migration, they may hold Whinchats Saxicola rubetra and Tawny Pipits Anthus campestris. A wide range of shrikes Lanius spp pass through the valley; apart from the common migrants Red-backed Lanius collurio and Lesser Grey Lanius minor, Steppe Grey Lanius (meridionalis) pallidirostris and several forms of Isabelline Shrike Lanius isabellinus sensu lato have been recorded. The classification of the 'Isabelline Shrike' complex is still unclear, making assessment of

status difficult; the commonest form is Turkestan Shrike *Lanius (isabellinus) phoenicuroides,* which has been recorded in most months, but there are several records of Daurian *Lanius (i.) isabellinus,* which may be commonest in winter. Surprisingly, members of the SWE recorded several individuals of the form *Lanius (i.) arenarius,* sometimes called Chinese Shrike, which appears to be a winter visitor in small numbers to the lower valley; there are few other records of this form from the Western Palaearctic. There is an excellent and well illustrated discussion of this contentious subject in Hofland & Saveyn (2005). We would be grateful for all observations of atypical shrikes, which should be fully documented, preferably with photographs.

The most distinctive habitats of the valley are the oxbows (Table 1). Several, brackish and barren of vegetation, are less interesting, though migrant waders probably stop to feed and Kentish Plover and White-tailed Lapwing sometimes breed. Examples are at al-Kasrah* (W15), on the north bank just downstream of the ruins of Zalabbiyah, and oxbow W13*, upstream of the gorge. Most oxbows are freshwater and form one of the most valuable wildlife habitats in Syria. They are typically sickle-shaped, with the deepest water furthest from the river, shelving gradually into the centre of the oxbow, where the dry land is often too salty to cultivate. The ends of the oxbow usually peter out into substantial areas of sedge Juncus or huge reedbeds Arundo and Phragmites, though one end may still connect with the river. Thus an intact oxbow affords a rich mosaic of habitats. The open water holds Little Grebes Tachybaptus ruficollis, Eurasian Coots Fulica atra, ducks (dabbling and diving), terns and herons. In winter the commonest duck are Common Pochard Aythya ferina and Eurasian Teal Anas crecca, with smaller numbers of Mallard Anas platyrhynchos, Northern Pintail Anas acuta, Northern Shoveler Anas clypeata and a few Gadwalls Anas strepera. Tufted Ducks Aythya fuligula and Common Shelducks Tadorna tadorna are scarce and the Eastern Greylag Goose Anser anser rubirostris appears now to be a rare visitor. During migration, oxbows are havens for Garganeys Anas querquedula, which probably breed in small numbers, though this is not yet proven anywhere in Syria. Several species of terns pass through including Gull-billed Gelochelidon nilotica, Whiskered Chlidonias hybridus and White-winged Black Chlidonias leucopterus, Common Sterna hirundo and Little Tern. Nine species of heron, Eurasian Spoonbill Platalea leucorodia and Glossy Ibis Plegadis falcinellus are regular in small numbers. Little Egrets Egretta garzetta, Great White Egrets Egretta alba, Grey Herons Ardea cinerea and Black-crowned Night Herons Nycticorax nycticorax are present throughout the year, Eurasian Bittern Botaurus stellaris and Western Cattle Egret Bubulcus ibis are widespread winter visitors and Purple Herons Ardea purpurea, Squacco Herons Ardeola ralloides and Little Bitterns Ixobrychus minutus are common in summer. Pygmy Cormorants Microcarbo pygmaeus are winter visitors to the lower Syrian Euphrates; there is a large colony on the Turkish Euphrates just north of the border and they are much commoner in the upper valley. Breeding has never been proven for either cormorant or any of the herons, partly because much of the river is inaccessible, mainly because coverage has been poor; secluded backwaters could well hold colonies. Open waters usually suffer from excessive human disturbance, from fishermen and from the many weekend hunters. Thick belts of reeds, sometimes several kilometres long, form around them, habitat for large populations of Bearded Tits Panurus biarmicus and warblers such as Great Reed Acrocephalus arundinaceus, Reed Acrocephalus scirpaceus and Savi's Locustella luscinioides. Moustached Warblers Acrocephalus melanopogon mimicus are resident but relatively scarce; perhaps the harsh winters limit their numbers. Purple Gallinules Porphyrio porphyrio are widespread but wary, except at Mheimideh. Little Crake Porzana parva is a frequent migrant and Water Rails Rallus aquaticus are common in winter; both may breed but this is hard to prove. The reedbeds form roost sites for often vast flocks of passage migrants such as hirundines, Spanish Sparrows Passer hispaniolensis and Yellow



Plate 8. Pin-tailed Sandgrouse Pterocles alchata, al-Hjeifat, Syria, 10 March 2009. © Ahmad Aidek

Wagtails. In winter, Corn Buntings *Emberiza calandra* are very common and Reed Buntings *Emberiza schoeniclus* are widespread in smaller numbers; they are hunted by raptors such as Long-legged Buzzard *Buteo rufinus*, Eurasian Sparrowhawk *Accipiter nisus* and Hen Harrier *Circus cyaneus*. Most importantly, the reeds form safe breeding sites for several species of duck with a temperate breeding range that are now globally endangered. Ferruginous Ducks *Aythya nyroca* NT (globally Near Threatened) are widespread residents, favouring small areas of open water deep in the reeds; tens of pairs breed at Mheimideh. Marbled Ducks *Marmaronetta angustirostris* VU are usually easy to see at Mheimideh but have been recorded from a few other locations; they appear to be much scarcer in winter. Small numbers of White-headed Ducks *Oxyura leucocephala* EN (globally Endangered) are resident at Mheimideh where a few pairs (probably less than five) breed; they have not yet been recorded elsewhere but visitors are urged to look for them. These species are all wary and estimating their breeding populations is extremely difficult. Late spring/ early summer records indicate that small numbers of Northern Shovelers, Mallards and Common Pochards may also nest.

The valley sides are steep and often vertical. They are good habitat for See-see Partridge *Ammoperdix griseogularis*, here near the western edge of its range; it occurs as far upstream as lake Assad, the site of the first Syrian records (Macfarlane 1978), but the site that most birders visit is a barren valley* south of the Halabbiyah ruins (Murdoch *et al* 2005). The cliffs offer nest sites for raptors and Northern Ravens *Corvus corax*; they are likely to hold Eagle Owls *Bubo* sp, which could be Eurasian *Bubo bubo* or the recently separated Pharaoh Eagle Owl *Bubo ascalaphus*, present at Talilah 150 km to the southwest (Serra *et al* 2009). There is a well-known colony of Lesser Kestrels *Falco naumanni* on cliffs c15 km upstream from the Halabbiyah gorge and another on the cliffs below Dura Europos (Plate 4).

Much of the badia close to the valley is heavily grazed, grossly degraded and almost birdless; human pressure is intense. Where it is in better condition, common birds include several species of resident lark such as Crested Lark, Hoopoe Lark *Alaemon alaudipes* and



Plate 9. Iraq Babbler Turdoides altirostris, Mheimideh, Syria, 31 January 2011. © Ahmad Aidek

Temminck's Lark *Eremophila bilopha*, with flocks of wintering Eurasian Skylarks, Calandra Larks and Eurasian Dotterels *Charadrius morinellus*, hunted by Merlins *Falco columbarius* and Pallid Harriers *Circus macrouros*. Isabelline Wheatears *Oenanthe isabellina* and Cream-coloured Coursers *Cursorius cursor* are breeding visitors, with occasional Eurasian Stone-Curlews *Burhinus oedicnemus*. The avifauna of the steppes was formerly much richer; it included Arabian Ostrich *Struthio camelus syriacus*, a subspecies now globally extinct, and Asian Houbara (Macqueen's Bustard) *Chlamydotis macqueenii* (VU; now almost extinct in Syria). Great Bustards *Otis tarda* VU still winter in small numbers but are heavily persecuted. Even sandgrouse *Pterocles* spp are now scarce; Pin-tailed Sandgrouse *Pterocles alchata* (Plate 8), once a characteristic and abundant resident of the badia, has suffered a massive decline. Black-bellied Sandgrouse *Pterocles orientalis* was once a common winter visitor from the Turkish plateaux; again, there are very few recent records. All observations of sandgrouse are requested.

For two species, the Euphrates valley is at the western edge of their range, making them of special interest to visiting birders. Until recently Iraq Babbler *Turdoides altirostris* (Plate 9) was believed to be endemic to riparian habitats in Iraq. The first Syrian records were from the suspension bridge at Deir ez-Zor in March 2001 (Vandemeutter & Soors 2001) but in January 2004, during the SWE, it was seen within 10 km of the Turkish border and in 2006 it was found breeding in gravel pits north of Birecik in southern Turkey (Donaghy 2006). In Syria it is now a common resident of reedbeds and adjacent luxuriant habitat throughout the valley. Why are there no earlier records of such a conspicuous and vocal bird? It has surely only recently colonised the Birecik area, which has been well-watched for many years; it was not seen at the 2006 breeding site in 2005 and it has since been recorded elsewhere in the area (Kirwan *et al* 2008, Kirwan pers comm). But few birders visited the Syrian Euphrates in the 20th century and it could have been overlooked; as an example, Baumgart *et al* (1995) did not recognise Bearded Tit or Savi's Warbler as Syrian breeding species, yet both are widespread along the Euphrates. It is impossible to be certain but it

Table 2. Co-ordinates of sites other than oxbows (W2 etc = oxbow codes, see Table 1).

	N°	E°
Ar-Raqqa	35.95	39.01
Shnan (W2), point closest to road	35.83	39.22
Shnan (W2), viewpoint over reedbed	35.83	39.24
Shnan (W2), riverside wood	35.860	39.206
Halabbiyah ruins	35.69	39.82
Halabbiyah See-see valley	35.66	39.82
Halabbiyah upstream viewpoint	35.733	39.802
Al-Mustah salt fields	35.75	39.67
'Lesser Kestrel cliffs'	35.72	39.72-39.74
Turn to Halabbiyah west of gorge	35.676	39.676
Turn to Halabbiyah south of gorge	35.627	39.786
Pontoon bridge downstream from Halabbiyah	35.696	39.823
Mheimideh (W18)	35	40
Mheimideh roadside sedges	35.431	40.094
Mheimideh causeway	35.428	40.106
Mheimideh salt fields	35.41	40.13
Viewpoint over river at Hassan	35.35	40.14
	55.55	10.11
Deir ez-Zor, Ziad hotel	35.339	40.142
Deir ez-Zor, suspension bridge	35.34	40.15
Hatla (W20), southwest corner	35.345	40.187
Hatla (W20), north end	35.358	40.202
Turn off main road to oxbow W22	35.280	40.310
Gravel pits at oxbow W22	35.276	40.305
River edge at oxbow W22	35.264	40.312
Turn to Mohassan (W23)	35.213	40.288
Mohassan (W23) centre	35.23	40.30
Mohassan gravel pits	35.21	40.28
Riverside bluffs on N side opposite Mohassan	35.260	40.34
Pools 21m south of Moundin	34.985	40.460
Pools 3km south of Mayadin	34.985 34.75	40.460
Dura Europos	34.75	40.73
Abu Kemal bridge		
Site upstream of Abu Kemal bridge	34.472	40.938
Al-Hjeifat steppes	35.570	40.250
Valley east of Shola	35.21	9.91
Ad-Dukhoul steppes	35.056	39.900
Ar-Rawda	35.336	41.043

seems likely that Iraq Babbler has recently expanded its range up the Syrian Euphrates. The other recent addition is White-eared Bulbul Pycnonotus (leucogenys) leucotis, which for several years was believed to be restricted to the immediate area round Deir ez-Zor: there was a strong suspicion that the population originated from escaped cagebirds. However, it spread northwards in Iraq in the 20th century (Salim et al 2012) and is now well established in Azraq, eastern Jordan (Balmer & Murdoch 2009). In 2010, on a day-trip from Deir to the Iraq border, the authors found it at five new locations, so it is probably present throughout the valley downstream from Deir ez-Zor. These observations strongly indicate natural colonisation. It is now widespread in Deir's gardens and has been recorded upstream as far as Mheimideh; it will surely spread further. A third species draws visiting birders: Syria is an important staging area for the Sociable Lapwing Vanellus gregarius CR (globally Critically Endangered), the status of which is of major concern. The Syrian Sociable Lapwing Survey of 2007 (Hofland & Keijl 2008) drew international attention to its passage in February/ March through the steppes of northeast Syria. The intensity of hunting in the badia is possibly a major factor in its recent decline. Numbers and sites vary from year to year, dependent on the amount of winter rainfall.

Several scarce raptors hunt the valley. Data from the SWE indicates a substantial wintering population of Great Spotted Eagles VU. Pallid Harrier is a common passage migrant (Murdoch & Betton 2008); in winter it is widespread but scarce throughout the northeast

of Syria, including the valley. Recent observations indicate that Lesser Kestrel may still be a widespread breeding species in the interior (Murdoch & Betton 2008). Egyptian Vulture *Neophron percoopterus* EN was once a common summer visitor but it has suffered a massive regional decline and is no longer present along the valley.

BIRDING SITES

Birding areas near ar-Raqqa

Between the reservoirs and the Halabbiyah gorge several areas of interesting habitat are worth exploring, including three major and at least seven smaller oxbows, as well as several sections of the river with multiple islands and false channels. The best base is the city of ar-Raqqa*, *c*25 km downstream from the Ba'ath dam, which is also useful for exploring the extensive wetlands of Ba'ath lake and the almost unknown lake Assad further upstream.

On the south side of the river, a large oxbow* at Shnan (W2), *c*25 km downstream from ar-Raqqa, deserves better coverage. It has a mosaic of habitats: a large area of open water, a reedbed 5 km long with hidden pools and, closer to the river, a large patch of thorn scrub, abandoned gravel pits and a marshy water course. In the river are three large hawaeij, none yet explored by birders. A network of roads and tracks supplies the fields on either side and gives some access to the river but the area needs a lot of walking; the tracks are very muddy in winter. Close to the main road, the raised sides of a canal give views over one end of the reedbed. In winter 2004, Shnan was excellent for raptors, with eight species including up to four Great Spotted Eagles. The reeds hold Purple Gallinules and Ferruginous Ducks and look good for Marbled Duck. A track on the upstream side ends at an attractive riverside wood (Plate 10) with large numbers of Dead Sea Sparrows. Unfortunately, recent drainage operations may have reduced the oxbow's interest. Further



Plate 10. Riverside wood, Shnan, Syria, 17 May 2006. © David Murdoch

downstream, a very large, almost circular oxbow* at Madan Jadid (W10), 56 km from ar-Raqqa (and 24 km direct from Halabbiyah) abuts directly onto the village; a stretch of open water 6 km long is at one point only 100 m from the main road. The open water suffers from heavy disturbance from fishermen, and probably from weekend hunters. A large expanse of saline flats* and derelict land between the arms of the oxbow looks interesting but is difficult to access; it holds Spur-winged Lapwings and should be good for White-tailed Lapwing. In February 2004 the oxbow held a selection of duck, notably Gadwall. Six km further downstream (and close to the al-Mustah fields, see below), a small oxbow* (W11) explored in February 2004 held a roost with a variety of waders, which may have been using the nearby salt fields to feed. It does not appear to have been visited since.

The oxbows on the north side have been very poorly covered. A large oxbow* (W6) near the village of Jdeidah briefly surveyed in February 2004 held a wide range of species including good numbers of Pygmy Cormorants and a few Ferruginous Ducks. Further downstream, an almost dry oxbow* (W13) was good for pipits including Syria's only record of Buff-bellied Pipit *Anthus (rubescens) japonicus*. Neither appears to have been visited since. Just downstream from Zalabbiyah there is a saline oxbow* (W15) with little marginal vegetation; it is close to the road and worth a quick stop to look for waders. The Balikh valley running north from ar-Raqqa was included in IBA003 (Evans 1994). Most of the river water is now abstracted for irrigation. Small areas of wetland survived into the 1980s but were rapidly disappearing. It is unlikely that any significant areas of habitat remain but recent coverage has been minimal.

The 'Halabbiyah loop' (Figure 2)

Upstream from Deir ez-Zor, the loop refers to a diversion through the gorge of that name, an easy journey from Deir or an excellent break on the long (and mostly tedious) journey from Deir to Aleppo. It can be accessed from the main Deir–Raqqa road*, c60 km by road from Deir or c80 km from ar-Raqqa, or, for those who have just visited Mheimideh, by continuing upriver and crossing the pontoon bridge* just below the gorge. The road is scenically attractive and combines good birding with a prime archaeological site, the Roman fortress city of Halabbiyah* (Plate 11), in itself a good site for wintering Finsch's Wheatear Oenanthe finschii. The road runs through the fortress, along and 10 m above the river, giving excellent views of the Euphrates, which runs fast and direct without marginal vegetation. On the other (northeast) side of the river stand the ruins of its twin fortress, Zalabbiyah, which are easily accessible but not in such good condition; there are good views over the river from Zalabbiyah but the gorge itself is out of sight. In winter, the river is good for Great Black-headed and Armenian Gulls, Great and Pygmy Cormorants, small numbers of Black-necked Grebes Podiceps nigricollis and several species of duck, notably Gadwall; the first Smews Mergellus albellus for Syria were recorded here in February 2004 (Murdoch et al 2005). During migration, small numbers of raptors use the gorge to cross the valley. There are Desert Larks Ammomanes deserti and See-see Partridges in these arid hills; See-sees have been seen on a ridge behind Halabbiyah and in the dry valley* 3 km to the south. Above the narrows there is a good viewpoint by the roadside* and a pleasant walk along the river with views over some small Hawaeij. Great Spotted Eagle has been seen here. The road then meanders gently upstream; c15 km by road (9 km direct) from the ruins of Halabbiyah, it runs 30 m from the base of the 'Lesser Kestrel cliffs'* (Plate 12), giving excellent views of a photogenic colony of Lesser Kestrels (probably 30-50 pairs, although they are extremely difficult to count accurately). There are also several pairs of Common Kestrels Falco tinnunculus, Little Owls Athene noctua, Eurasian Rollers Coracias garrulus NT and Western Jackdaws (here at the southern edge of its breeding range). Seesee Partridges have been seen on the cliffs. Further upstream, and c20 km from the ruins

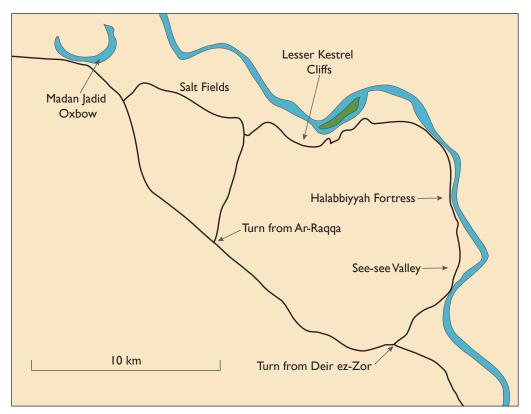


Figure 2. Key sites along the Halabbiyah loop, Syrian Euphrates.



Plate 11. Euphrates with ruins of Halabbiyah beyond, Syria, 20 April 2010. © David Murdoch

(15 km direct), there is a wide expanse of arable land with the 'al-Mustah salt fields'* in its centre (Murdoch *et al* 2005). When they were first visited in winter 2004, the fields held an exceptional range of waders with good numbers of Pied Avocets *Recurvirostra avosetta*, Black-tailed Godwits *Limosa limosa* NT and Eurasian Curlews *Numenius arquata*, all scarce in Syria, and smaller numbers of ducks, notably Eurasian Teal. In spring 2006,



Plate 12. 'Lesser Kestrel cliffs' contains a photogenic colony of Lesser Kestrels Falco naumanni, Syria, 7 April 2010. © Ahmad Aidek

a shallow pool with wet fields attracted an excellent variety of passage waders including several Red-necked Phalaropes *Phalaropus lobatus*; several pairs of White-tailed Lapwings were territorial. Recent visits during migration have been very disappointing: human pressure was intense and the fields were totally dry. Further visits in a wet winter would be interesting.

Sites round Deir ez-Zor (Figure 3)

Most birders visiting the valley stay in Deir ez-Zor*, an excellent choice with good birding within walking distance; close to the city there are orchards and thick hedges that leave more space for wildlife, giving a different feel to the rest of the valley. Hotel gardens may hold White-cheeked Bulbuls. Little Swifts Apus affinis have been seen several times over the city but is not yet proven to breed; this is a scarce species in Syria and the location of a nesting colony would be of great interest. At Deir, the Euphrates forms two channels with several islands fringed by reeds and mature riverside trees. The attractive suspension bridge* gives fine views of the main channel; this is a good area for Little Crake and Penduline Tit Remiz pendulinus. In April 2009, evening visitors watched Peregrine Falco peregrinus, Hobby Falco subbuteo, Red-footed Falcon Falco vespertinus and Eleonora's Falcon Falco eleonorae flying together (Haraldsson 2009). The city (south) side of the suspension bridge is on the pleasant island of Al-Haweikah, which has several large orchards worth checking; a road runs upstream from the suspension bridge, the corniche giving good views of the main channel. The first Yellow-throated Sparrows Gymnoris xanthocollis for Syria were found along this road* in June 2003 (Murdoch 2005), breeding in the tops of telegraph poles. On the further (north) side of the suspension bridge there are some small fields* secluded by dense conifers up to 15 m tall and protected from hunters; unfortunately there is no public access. Long-eared Owls Asio otus are regular in winter and Eurasian Scops Owls Otus scops occur on passage, though it has not been proven to

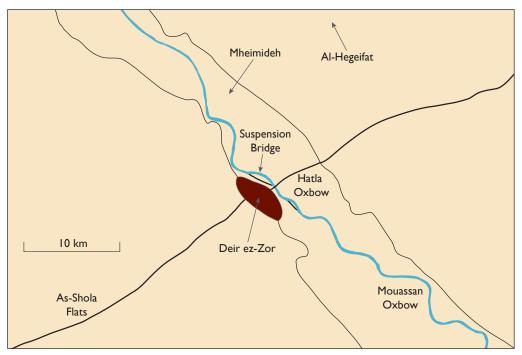


Figure 3. Key sites around Deir ez-Zor, Syria.

breed; the fields also hold Greenfinches *Carduelis chloris* and Common Woodpigeons and there are winter records of Eurasian Siskin *Carduelis spinus* and Redwing *Turdus iliacus,* both rarely reported from Syria. The straight road leading away from the bridge on its north side is a good spot for the owls. Several Yellow-throated Sparrows were singing in the conifers in June 2003 but there have been no reports since, perhaps because few birders visit in midsummer. The city side of the suspension bridge has several pleasant riverside restaurants; an evening drink enjoying the sunset and contemplating the river is highly recommended.

Mheimideh* (W18) (Plate 13) is the best site on the Syrian Euphrates. It is on the north side of the river, 18 km by road from Deir (12 km direct) and 2 km from the river, and is more fully described in a previous account (Murdoch 2007). This relict oxbow, just $c1.5 \times 1.5$ km in size and surrounded on all sides by houses-it is effectively in the middle of an extended village-suffers from extreme disturbance, with massive grazing pressure, harvesting of reeds, tipping of rubbish, trapping and some hunting, yet it is still astonishingly good for birds. Breeding species include Ferruginous, Marbled and White-headed Ducks, as described above; a remarkable number of waders including perhaps five pairs of Whitetailed Lapwings, sadly reduced from even five years ago, but still at least ten pairs each of Spur-winged Lapwing and Black-winged Stilt; a substantial colony of Whiskered Terns; Great Crested Grebe Podiceps cristatus, which has only rarely been recorded breeding in Syria, and Little Grebe; and a range of reedbed species including Iraq Babbler, Purple Gallinule (common and conspicuous) and Moustached Warbler. Blue-cheeked Bee-eaters bred until recently but feral dogs roam the site and have chased them away; Whitecheeked Bulbuls have now appeared. The only breeding record of Citrine Wagtail from Syria comes from the sedges* right by the main road (Murdoch & Betton 2008). Nine species of herons have been recorded and visitors can expect at least five; none has been



Plate 13. Mheimideh, the best site on the Syrian Euphrates, 3 February 2009. © Ahmad Aidek

proven to breed though Little Bittern is likely to do so. A few Eurasian Bitterns winter. When it is not too dry, it is excellent for passage waders, most commonly Ruff Philomachus pugnax, with records of Syrian rarities such as Black-winged Pratincole Glareola nordmanni and Bar-tailed Godwit Limosa lapponicus. Collared Pratincoles Glareola pratincola are often present in spring but probably do not stay to breed. Little Crake is a regular migrant and Water Rails are common in winter; late spring records indicate that either species could breed. It is good for raptors, with harriers and Merlins the most regular. Access is excellent; the main road along the northeast side of the river runs along one edge and a causeway* at the far end of the oxbow gives excellent views of the most productive area. It is best to visit at first light as many waterbirds soon disappear into the reeds. But pressure on the land is intense and Mheimideh is in extreme danger of being drained; a proposal was narrowly rejected in 2010 because AHA, working for the Department of Environmental Affairs, was able to lodge objections. Fortunately, some local people, encouraged by foreign birders' visits, are interested in saving the site. There are plans to develop Mheimideh as the flagship nature reserve for the Euphrates valley, for its outstanding educational potential as much as for its birds. The chances of saving Mheimideh will increase if birders use the local shops and let village children look through their optics; a Palmyran conservationist, Adib al-Asaad, has played a key role in enthusing them and they are always interested in meeting foreign visitors. Illustrated wildlife magazines are very popular, so bringing some to give away is appreciated. Publications in Arabic such as A guide to the biodiversity of the Deir ez-Zor area (Aidek 2010) and the Syrian field guide (SSCW & BirdLife International 2009) are also welcomed.

Several other sites close to Deir ez-Zor look promising but are rarely visited. On the northeast side of the river, there are some 'salt fields'* four km southeast of Mheimideh, checked during the SWE but apparently not since; in February 2004 they held good numbers of waders, notably White-tailed Lapwing and Temminck's Stint *Calidris*

temminckii. Very close to the Deir-Hasakah highway, a small oxbow at Hatla* (W20) has thick reed beds, a small area of sedges at the southern end (Plate 14), open water with secluded pools and a large expanse of salt-pans at the north end*. Records include Ferruginous Duck, Purple Gallinule, White-tailed Lapwing, Iraq Babbler and Penduline Tit, all likely to breed. This wetland is within 20 minutes' drive of the centre of Deir and could be checked out in two hours. Further down the northeast side, 14 km downstream from the Deir-Hasakah highway, an accessible area of gravel pits* fringed with reeds leads down to an oxbow* (W22) with several narrow channels good for dragonflies; there are several hawaeij in the main channel of the river. A large area of derelict land between the gravel pits and the bluffs along the valley edge is good for wintering stonechats and wheatears and a path leads down the east side of the oxbow to the river*. On the southwest side of the river, Mohassan* (W23) is an oxbow 18 km downstream from Deir with similar habitat to Hatla. Records include Black Francolin, Marbled Duck, Purple Gallinule, Whitecheeked Bulbul, Steppe Grey Shrike, a variety of waders along the wetter edges and, in a relict area of tamarisk, Ménétries' Warbler. Almost opposite the turning to Mohassan are some undisturbed gravel pits* good for waders and pipits; White-tailed Lapwings may breed here. Macfarlane made several visits to a relict oxbow at Shumaytiyah* (W17), 20 km upstream of Deir, in the 1970s (Macfarlane 1978), recording Marbled Duck in June 1975; several thousand duck were present in the 1993 International Wildfowl Census (Evans 1994). It was not surveyed in the SWE but exploration in April 2006 (DAM) found little of interest.

The badia adjoining the valley has been neglected by foreign birders. Al-Hjeifat* (Plate 15), an area of steppe *c*30 km north of Deir, is excellent February–March (and sometimes good in late autumn), holding sandgrouse and a range of larks including Hoopoe Lark, Lesser-Short-toed Lark *Calandrella rufescens* and Eurasian Skylark; Greater Short-toed Lark *Calandrella brachydactyla* is common on passage. Sociable Lapwings often stage here February–March and there are reports in March of up to four Asian Houbaras. Small flocks of up to ten Common Cranes *Grus grus* pass through and Stone Curlews may still breed. Raptors in early spring can include Golden Eagle *Aquila chrysaetos*, Eastern



Plate 14. Hatla sedges, close to the Deir-Hasakah highway, Syria, 16 April 2006. © David Murdoch



Plate 15. Al-Hjeifat, an area of steppe c30 km north of Deir, Syria, 27 February 2010. © Ahmad Aidek

Imperial Eagle *Aquila heliaca*, harriers, Common Kestrel and Merlin. Not surprisingly, al-Hjeifat is very popular with hunters. It is of less interest later in the year; in April 2010 it was very dry and almost birdless. The road from Deir to Palmyra crosses a broad valley east of the village of al-Cholla (or Shola)*, c25 km southwest of Deir, which, when it floods, can form an excellent wetland; at its best, when the thick emergent vegetation conceals large numbers of migrant waders and harriers quarter overhead, it is worth at least an hour's visit. Further towards Palmyra, on 1 March 2007, during the Syrian Sociable Lapwing Survey, Hofland & Keijl (2008) recorded a minimum count of 113 Sociable Lapwings CR in steppes near al-Cholla; eight Sociable Lapwings were present here on 29 February 2008. Ad-Dukhoul is a large area of steppe southeast of al-Cholla and c30 km southwest of Deir ez-Zor; it can hold large flocks of sandgrouse, larks and waders including Golden Plovers *Pluvialis apricaria* and Dotterels, hunted by the usual range of raptors. More than 200 Sociable Lapwings were present in 2009. Cream-coloured Coursers possibly breed and the area is good for shrikes and wheatears on passage.

The valley from Deir ez-Zor to the Iraq border

This section of the valley, the farthest downstream, has been little covered; the Iraq border and the intense population pressure have probably deterred visitors. However, it has interesting and almost unexplored habitat with potential for major discoveries. The main road on the southwest side of the valley crosses an oxbow 3 km south of the town of Mayadin, not listed by Andrews, with some interesting pools* by the roadside; a reedbed stretches towards the river but is difficult to access. During the 1993 International Waterfowl Census (Evans 1994), 'Mayadin Pool' was a shallow pool of 300 ha that held 2375 waterfowl, but it appears to have been drained. A sizeable oxbow at Ashara* (W28), *c*65 km from Deir and 20 km from Mayadin, has large reedbeds, extensive salt pans and two long stretches of open water, but disturbance from fishermen from the nearby village is intense. In February 2004 the open ground was good for wintering stonechats and Chinese Shrikes and the reeds held Eurasian Bittern, Purple Gallinule, Little Crake and Moustached

Warbler. Most interestingly, a Clamorous Reed Warbler Acrocephalus stentoreus was well seen, the first record from the valley. This oxbow clearly deserves better coverage, best in the early morning. It is a slow drive down to Abu Kemal, the town by the Iraq border, where a major road bridge* crosses the river. Here, the river looks much more interesting than for many kilometres upstream; the banks are thick with trees but the bridge is too close to the border to stay long. A brief halt in April 2010 turned up a White-throated Kingfisher *Halcyon smyrnensis*, a species rarely recorded from the valley. On the northeast side, immediately upstream of the bridge, the river is easy to reach* and there is good habitat with large palm groves and thick hedges. An early morning visit would be ideal but it is a long journey from Deir and there appear to be no hotels for (Western) foreigners in Abu Kemal. Western birders are strongly advised not to visit unless they are in the company of a Syrian national-and certainly not to stop on the bridge! Further up the northeast side, the road is particularly slow. Some wet fields* between road and river at al-Buseira, 15 km north of Mayadin, held a good variety of passage waders in April 2010. In winter 2004, just downstream from the village of Abu Hammam, members of the SWE found several oxbows* (W30–32) and a large floodplain with reedbeds and saltpans but also scattered housing; several roads crossed the area and hunters were active. Undisturbed areas held small numbers of ducks, waders, and passerines such as wintering Siberian Stonechat. Birders do not appear to have visited since.

This account includes Sabkhat ar-Rawda (Plate 16) because it is best visited from a base in Deir ez-Zor and because the area has exceptional potential to which we wish to draw readers' attention. It is one of a complex of three sabkhas straddling the Iraq/Syrian border; they have rarely been visited and very little is known about their birds. Sabkhat ar-Rawda itself is just inside Syria, *c*70 km north of the valley and *c*130 km from Deir. Examination using Google Earth revealed a triangular depression *c*10 × 15 km in size fed via the al-Ajeaj ravine by 23 springs in Syria and Iraq. Its significance was discovered by chance: a Lesser White-fronted Goose *Anser erythropus* VU satellite-tagged in the Taymyr peninsula of Russia spent December 2006–January 2007 in a previously unknown site in eastern Syria before moving into Iraq. This was the first unequivocal Syrian record. The first expedition to the site, in February 2007 (Kullberg 2007), encountered a huge barren steppic area with



Plate 16. Sabkhat ar-Rawda, near Iraq border, Syria, 8 March 2010. © Ahmad Aidek

minimal human disturbance; the sabkha was dry but had recently held water. Interesting observations included at least 700 Ruddy Shelducks Tadorna ferruginea and a few geese (Greater White-fronted Anser albifrons and Greylag Anser anser); Kullberg (2007) suggested that the sabkha had probably held large flocks of geese before it dried out. A second expedition, in February 2010 (Eskelin & Timonen 2010), which covered only the northern and eastern shores, recorded several species of waterfowl including at least 500 Greater White-fronted Geese, thousands of Eurasian Teal and at least 25 000 Ruddy Shelducks (one of the largest counts made in the OSME region), over 500 Greater Flamingos Phoenicopterus roseus, hundreds of waders and 33 Gull-billed Terns. Over 30 000 waterfowl remained unidentified, many of which may have been Ruddy Shelduck. On a day's visit in April 2010 the authors found a huge lake with several rocky islands, a vast flock of Greater Flamingos almost lost in the heat haze, a distant mass of unidentifiable duck and a muddy edge lined by thousands of migrant waders. Several species, notably Kentish Plover and Pied Avocet, were settling down to breed. We found no human habitations. Roads petered out several km short of the water but a network of sandy tracks ran round some of the edges. The area is extremely remote and, being so close to the Iraq border, disturbance from hunting would seem unlikely, but, sadly, Eskelin & Timonen (2010) found some shot Ruddy Shelducks. These sabkhas clearly deserve IBA status and a full-scale expedition to explore them properly. A key issue is the frequency with which they hold water: in 2010 the water level was relatively high but in 2011 they were completely dry. Eskelin & Timonen (2010) suggested that several years' observations were needed to document their hydrology and the resulting changes in the bird populations. In wet years they may hold substantial numbers of breeding waders and even colonies of Greater Flamingos. It was extremely challenging to visit in a saloon car; visitors are strongly recommended to take a 4WD vehicle!

DISCUSSION AND CONCLUSIONS

The wildlife of the Euphrates is remarkably little known considering that the valley lies in the Western Palaearctic. This is in part because it has been extensively degraded. None of the original vegetation survives intact and the mammalian fauna is essentially relict; data sets on other faunal groups are rarely available but would probably give a similar picture. Fortunately, the river itself, its islands and reedbeds, are relatively inaccessible to humans; as a result, its birdlife shows a rich and seasonal diversity. But the major reason for the lack of information is the very poor coverage. Most birders visit well-known localities in April, during the height of spring migration; coverage at other times of year is poor (and minimal late May-September). Many potentially interesting oxbows have never been surveyed; coverage during the SWE was not comprehensive. The inaccessibility that offers protection from hunters also makes birding difficult. Few birders venture downstream from Deir ez-Zor; the valley close to the Iraq border might well hold populations of several species known from central Iraq (Salim et al 2012). These include Hypocolius *Hypocolius ampelinus*, a common summer visitor to oases, orchards and tamarisk in central Iraq; Afghan Babbler Turdoides (caudata) huttoni, a resident of arid areas with thorn scrub; Egyptian Nightjar *Caprimulgus aegyptius*, a summer visitor to semi-deserts (there are a few old Syrian records); and Indian Roller Coracias benghalensis, an inhabitant of open country with scattered trees.

In particular, very little is known about the breeding species. In global terms, the most significant are probably Iraq Babbler, of which there are likely to be hundreds of pairs, and three globally threatened species of duck. Ferruginous Duck NT is easy to find and the valley probably supports an internationally significant population, perhaps in the hundreds of pairs. Marbled VU and White-headed Duck EN have been recorded from

few sites but are more elusive; the valley still holds large, unexplored areas of potential breeding habitat and it is impossible to estimate their numbers. The status of reedbed specialists is particularly unclear. Little Crakes and Water Rails breed in southern Turkey (Kirwan et al 2008) and probably also in Syria; they have been recorded from suitable habitat in the valley in late spring. The warblers of the genus Acrocephalus present the greatest challenge of all as identification often needs examination in the hand. There are a few reports of Clamorous Reed Warbler from the valley; it is unknown whether they refer to the resident subspecies Acrocephalus stentoreus levantinus, which breeds rarely in southern Syria (Murdoch & Betton 2008, Kennerley & Pearson 2010) or the longer-winged migratory form A. (stentoreus) brunnescens, sometimes given species status as Indian Reed Warbler, a migrant and winter visitor to Iraq (Salim et al 2012). Another species that may be overlooked is Basra Reed Warbler Acrocephalus griseldis EN; it is known to breed regularly only in the lower Tigris/Euphrates basin but there is one confirmed Syrian record (Yésou et al 2007), photographed in April 2006 at Halabbiyah. Acrocephalus warblers consistent with Basra Reed Warbler have been recorded on several occasions, seen briefly or singing (DAM), but confirmation of identification needs photographic and/or sonographic evidence or, ideally, examination in the hand using mist-nets. There are many sites in the valley, for instance Mheimideh and Ashara, suitable for mist-netting. A ringing programme would have many benefits; it would increase knowledge of other elusive birds of the valley eg River Warbler Locustella fluviatilis (rarely recorded but probably a regular migrant), and enable use of intrinsic markers such as stable isotope ratios (Coiffait et al 2009), for instance to investigate the breeding origin of the wintering 'Chiffchaffs' and 'Isabelline Shrikes'.

So how can foreign birders and ecotourists assist? To make best use of the information available, every Syrian record is being uploaded onto the Middle East Birds database (www.worldbirds.org/middleeast), which is part of the WorldBirds network; the database is freely available to all. Naturalists with records not yet submitted are asked to send them to OSME for inclusion in the database. Individual birders can contribute by exploring little-known sites. They are strongly advised to use the services of local naturalists: partly to make their trip safer and more enjoyable and partly to support the infant Syrian conservation community. Bringing wildlife literature to give away is a good way of reciprocating friendship—Syrians are extraordinarily hospitable. Second-hand optics are much appreciated gifts as few local naturalists can afford to buy them. At a national level, Mheimideh and Sabkhat al-Jabbul (southeast of Aleppo) have exceptional potential as flagship reserves for Syrian conservation; their protection and development may be the responsibility of national and international organisations but their economic value to local communities will be critical to their success. Birders can contribute by visiting and supporting them financially.

Most of all, there is a pressing need for far more information of educational value in a form that ordinary Syrians can understand. Many Syrians show genuine interest in their wildlife but almost no literature is available in Arabic. An illustrated booklet has begun to address this problem; written by AHA (Aidek 2010), it is available free. It is of critical importance that international conservation organisations support such efforts. In the last generation, there has been a calamitous degradation of the badia's wildlife (Murdoch 2010). Without the support of the people living in the valley, encouraged by educational material and assisted by financial support from conservation organisations, this may happen along the Euphrates and attempts to save its remaining wildlife will be likely to fail.

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